Claim

1. use nanometer surface cladding composite for the lithium secondary battery of anodal active material,Include with the negative pole of various modes storage lithium, organic or inorganic electrolyte,Separate by soaking the diaphragm that there is the electrolyte solution or polymer dielectric or solid electrolyte between positive pole and the negative pole,In the sealed income battery case,It is continuous with the battery case or the electrode post of mutual insulation respectively from the wire anodal and cathode extraction,Characterized in: anodal active material powder is through the modified processing of nanometer surface cladding; All-purpose anodal active material in the lithium secondary battery at present by the clad material; The clad material is semimetal, oxide or saline material,It can the mixture of one of them kind or multiple clad material; The coating average thickness is 0.5-200nm,The particle diameter is 0.1-200nm; To mix the even coating of compound thick liquids that forms or roll-in by the modified composite of nanometer surface cladding and binder, conductive agent and make the film on the carrier electrically conducting,After the film is dried,Through the densifying processing,The reuse traditional approach is dried,It can to cut out into required shape according to the battery specification.

2. according to claim 1,2 said use nanometer surface cladding composites are the lithium secondary battery of anodal active material, and characterized in: said semimetal is the material with carbon element, specifically is various hard carbon materials, soft material with carbon element, graphite, graphitization material or modified graphite class material.

3. according to the lithium secondary battery of the said use nanometer of claim 1 surface cladding composite for anodal active material, characterized in: said oxide is the oxide or the composite oxides of the metal by IIA-VIIIA in second in the periodic table of chemical element to the period 6 and IIB-VIB clan, nonmetal formation.

4. according to claim 1,4 said use nanometer surface cladding composites are the lithium secondary battery of anodal active material, characterized in: said oxide is for by Mg, Al, Si, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Zn, Ga, Ge, Ba, Y, Zr, Mo, In, Sn, Ta, W, La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, oxide or composite oxides that Ce formed.

5. according to the lithium secondary battery of the said use nanometer of claim 1 surface cladding composite for anodal active material, characterized in: said saline material is Li_3PO_4, $AlPO_4$, $Mg_3(PO_4)_2$, $LiMPO_4$(M=Mg, Fe, Co, Ni, Cr, Ti, or V) or LiF.